

NEWSLINE

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A stellar mystery

— page 4

WHAT'S INSIDE



LAB TEAM SHARP
IN BEST OF WEST
COMPETITION

PAGE 3



RECALLING
HURRICANE RELIEF
EFFORT

PAGE 5



EMPLOYEE
THOUGHTS OF
HOME

PAGE 6

LAB NEWS

Wall-to-wall Laboratory property inventory is under way

On Nov. 1, the Laboratory officially began its wall-to-wall inventory of LLNL government-owned personal property at Livermore, Site 300, the Nevada Test Site, offsite and at residences.

The inventory campaign is tasked with locating approximately 60,000 "equipment" and "attractive" items, which include vehicles, bicycles, precious metals and motor equipment. Each of these assets must be physically located and the attached property tag scanned for verification. The inventory will likely touch a majority of the Laboratory population as most employees are custodians of personal property.

Every effort will be made to make the inventory

as seamless and unobtrusive as possible to the workforce. However, to ensure the inventory is conducted as safely as possible, some disruption may be necessary. For example, property center representatives (PCRs) are required by property management to seek permission from facility point of contacts (FPOCs) and property custodians prior to entering buildings, offices, labs, closets, storage rooms and transportainers. PCRs will not open desk drawers, briefcases or bags to inventory property. Instead, employees will be asked to provide assistance by making items such as PDAs, palm pilots and cameras accessible for scanning.

The Property Management Division (PMD) is

responsible for leading the overall inventory effort, and is working closely with each directorate's PCRs, Fleet Operations and the Materials Management Section to communicate and coordinate all aspects of the inventory campaign. Employees can assist this effort by identifying and locating assigned property as requested by their PCR.

If you would like to review items assigned to you, contact your PCR. A complete list of PCRs is available on the Property Management home page (<http://www-r.llnl.gov/bsd/property/>).

For more information contact Salvador Ruiz, 3-5451, or Hanif Nassor-Covington, 3-5487.

DOE notice on reporting waste, fraud and abuse

Editor's note: By order of Deputy Energy Secretary Clay Sell, DOE/NNSA employees are reminded of their duty to report allegations of waste, fraud and abuse to the appropriate authorities.

Any employee who has information about alleged criminal violations relating to DOE or NNSA programs, operations, funds, contracts, grants, or information technology systems shall provide this information to the Office of the Inspector General.

Examples of such violations include, but are not limited to: false statements; false claims; bribery; kickbacks; fraud; DOE environmental, safety, and health violations; theft; computer crimes; and conspiracy to commit any of these acts. Non-criminal violations normally should

be reported through the supervisory chain.

The above reporting requirement does not apply to information about espionage.

Information regarding espionage, including approaches made by representatives of other governments for the commission of espionage or the collection of information, should be reported to the director of Counterintelligence for DOE or the chief of Defense Nuclear Counterintelligence for NNSA, as appropriate.

Violations of the ethical restrictions that apply to Federal employees, including the standards of conduct for employees of the Executive Branch or the Department's supplement thereto, may be reported to the appropriate ethics counselor. In addition, employees

may report alleged violations of these provisions directly to the OIG.

Notwithstanding any other provision, employees must, when appropriate, report any information concerning wrongdoing directly to the OIG.

One avenue for reporting information to the OIG is via the OIG Hotline. The OIG Hotline may be reached at: 1-800-541-1625 (toll free); 202-586-4073 (commercial); 202-586-4902 (fax); or ighotline@hq.doe.gov (email).

Address regular mail to: U.S. Department of Energy, Office of Inspector General, Attn: IG-40, Mail Stop 5D031, 1000 Independence Ave., SW, Washington, DC 20585.



JACQUELINE MCBRIDE/NEWSLINE

International relations

From left: Cherry Murray, Jaswant Singh and Neil Joeck. Jaswant Singh, a senior political leader in India, visited the laboratory last week and presented a lecture entitled, "Indian Strategic Perceptions and the New U.S. Relationship." Now the leader of the opposition party in the Rajya Sabha (the upper house of India's Parliament), Singh led, in turn, the ministries of External Affairs, Finance and Defense. In his talk, Singh offered several indicators of India's growing political and economic role in world affairs. The new U.S.-India Science and Technology Forum, based in New Delhi and co-chaired by LLNL's Satish Kulkarni, now on assignment in India as U.S. science counselor, will benefit from Singh's visit and high level political attention to scientific opportunities.

LAB NEWS

The Best of the West '06

By Lonnie Alvey
PFD firearms and tactics
instructor

Twenty-eight law enforcement special-response teams from California, Nevada, and the U.S. Coast Guard participated in the annual Best of the West SWAT competition. The invitational event was held Sept. 21 and 22 at the Santa Clara County Sheriff's Training Facility.

One-half of the competition was dedicated to team events: physical challenge, team assault, jungle trail and long gun or sniper rifle. The other half was dedicated to individual events: shotgun and combat, which yielded a combined weapon score.

Our Laboratory team of six Security Police Officer IIIs received a total of eight working days to compete. Through a lot of hard work, skill and determination, our overall rating earned second place, behind the team

from the Sunnyvale Police Department. Out of 168 highly skilled individual participants, our SPO3s distinguished themselves taking second, third, fifth, twelfth, twenty-third and twenty-fourth places.

This is the third consecutive year that the Lab's SRT team has been invited to Best of the West. In their first appearance, they finished third overall. Last year they earned first place. While falling short of best overall this time, the Lab's second-place finish qualifies the team to compete nationally against other law enforcement and military teams.

So the Lab team's next challenge will be the prestigious Original SWAT Competition. This national championship will take place in Little Rock, Arkansas during the spring of 2007. There the team hopes once more to make family, friends and co-workers at the Lab, the NNSA, and the Department of Energy proud of their skills.



PDF PHOTOS

Above: The smiling faces behind those Foster Grants belong to the six ProForce Division security police officers who captured second place overall in this year's Best of the West invitational SWAT competition. That placement qualifies the Lab team to compete next spring in the international Original SWAT Competition in Little Rock, AK. (At right) Two team members are pictured in action during the event.



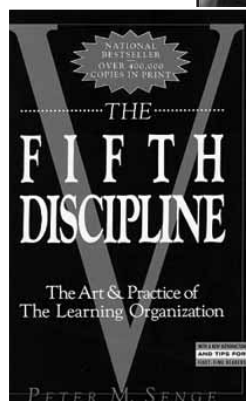
Peter Senge: Globalization poses new security threats

By Charles Osolin
Newsline staff writer

Increasing global interdependence and threatened shortages of water, food and energy are making the term "national security" obsolete, systems theorist Peter Senge told an LLNL Leadership Series audience Monday.

Senge, senior lecturer at the Massachusetts Institute of Technology and author of the seminal book on organizational learning, "The Fifth Discipline," said emerging security threats — such as economic inequities, food and water shortages and global climate change — cannot be addressed by individual nations, but will have to be solved through international cooperation.

"There's no such thing as national security — there's just security," Senge said. "The nation-state framework isn't adequate to deal with the future. Nation-states are out of balance if they define their interests as limited to their



Peter Senge's 1990 book, *The Fifth Discipline*, introduced the theory of learning organizations. Senge has also coauthored "The Fifth Discipline Fieldbook: Strategies and Tools for Building a Learning Organization" and "The Dance of Change: The Challenges to Sustaining Momentum in Learning Organizations."

boundaries."

Applying his work on building "learning organizations" that can adapt to changing environments to the challenges of globalization, Senge said nations today are faced with the need "to create a secure future in a globalized, interdependent world." Doing so, he said, will require a shift from a global culture that emphasizes economic efficiency to one based on human values, such as equality, creativity and community.

In a talk cosponsored by the Nonproliferation, Homeland and International Security and Administration and Human Resources directorates, Senge reviewed the core "learning capabilities" that enable organizations to adapt and survive: aspiration (a shared vision of what the organization seeks to create), reflective conversation (freely sharing different — even conflicting — ideas and perspectives), and understanding complexity (systems thinking).

Senge said the most successful organizations "regard themselves first and foremost as a human community, and secondarily as a business. They have a sense of who they are that tran-

scends what they do.

"At some level," he said, "learning is always about letting go. It's never easy, but without letting go we're never willing to step out into the unknown... and become great at something new."

Senge said organizations that move from crisis to crisis, relying on fear to motivate their employees, tamp down creativity and encourage distrust; while those that work to enroll employees in a shared vision are able to expand organizational intelligence and gain workers' commitment to "creating something in the future."

Great leaders spend half or more of their time clarifying and realigning the organization's vision, Senge said.

"Leadership is talking to people about how their work relates to the organization's vision."

Streaming video of Senge's talk is available on the Employee Organization and Development Division's Website (http://cmg-r-rr.llnl.gov/human_resources/sedd/eodd/broadcast_senge.html). For more information on Senge's organization, the Society for Organizational Learning, visit w.solonline.org.

SCIENCE NEWS

Stellar code cracks cosmic star mystery

By Anne M. Stark
Newsline staff writer

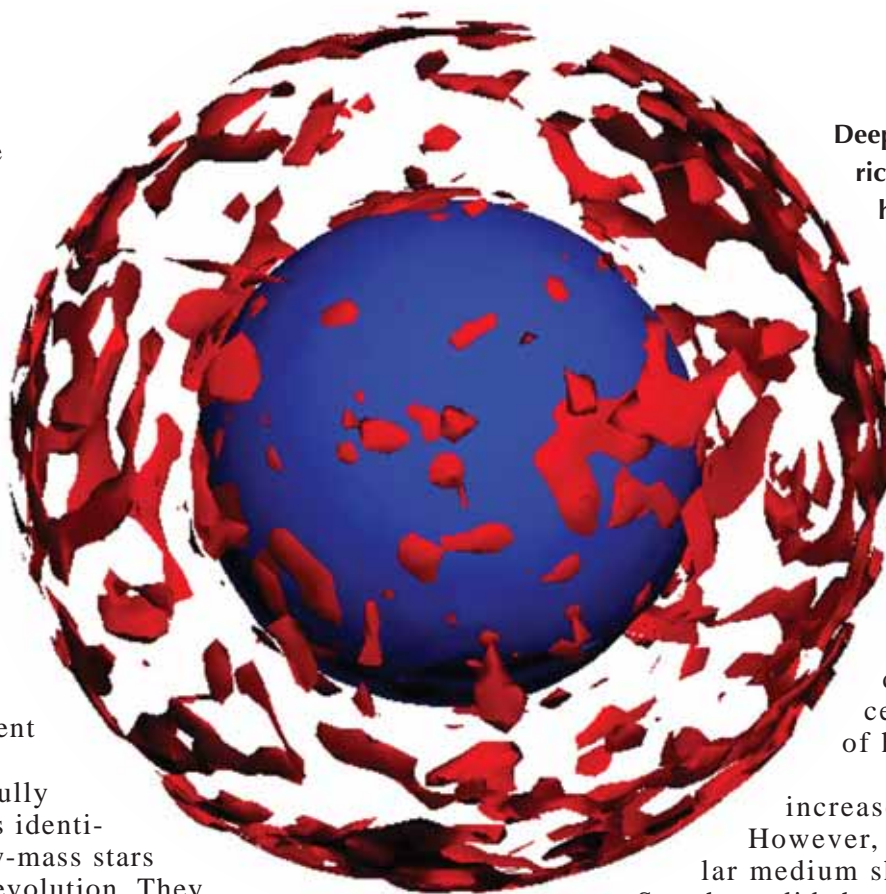
Using 3D models run on some of the fastest computers in the world, Laboratory physicists have created a mathematical code that cracks a mystery surrounding stellar evolution.

For years, physicists have theorized that low-mass stars (about one to two times the size of our sun) produce great amounts of helium 3 (^3He). When they exhaust the hydrogen in their cores to become red giants, most of their makeup is ejected, substantially enriching the universe in this light isotope of helium. This enrichment conflicts with the Big Bang predictions. Scientists theorized that stars destroy this ^3He by assuming that nearly all stars were rapidly rotating, but even this failed to bring the evolution results into agreement with the Big Bang.

Now, by modeling a red giant with a fully 3D hydrodynamic code, LLNL researchers identified the mechanism of how and where low-mass stars destroy the ^3He that they produce during evolution. They found that ^3He burning in a region just outside of the helium core, previously thought to be stable, creates conditions that drive this newly discovered mixing mechanism. Bubbles of material, slightly enriched in hydrogen and substantially depleted in ^3He , float to the surface of the star and are replaced by ^3He -rich material for additional burning. In this way the stars destroy their excess ^3He , without assuming any additional conditions (like rapid rotation).

"This confirms how elements evolved in the universe and makes it consistent with the Big Bang," said David Dearborn, a Laboratory physicist. "The previous one-dimensional model did not recognize the instability created by burning ^3He ."

The same process applies to low-mass metal poor stars, which may have been more important than metal-rich stars like the sun throughout the earlier part of galactic history in determining the ^3He abundance of the



Deep in the interior of a red giant star, hydrogen rich clouds (red) are seen to float above the hydrogen burning shell (blue).

CREDIT: DAVID DEARBORN/LLNL

interstellar medium.

The research appears in the Oct. 26 edition of *Science Express*.

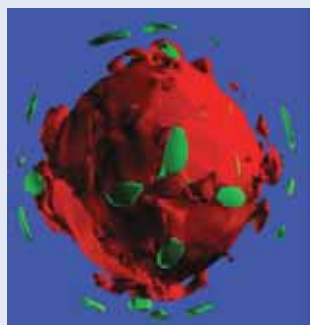
The Big Bang is the scientific theory of how the universe emerged from a tremendously dense and hot state about 13.7 billion years ago. The Big Bang produced about 10 percent ^4He , .001 percent ^3He with almost the rest made up of hydrogen.

Later, low mass stars should have increased that ^3He production to .01 percent. However, observations of ^3He in the interstellar medium show that it remains at .001 percent.

So where did that ^3He go?

That's where the Livermore team comes in. Livermore scientists Peter Eggleton and Dearborn collaborated with John Lattanzio of the Centre for Stellar and Planetary Astrophysics in Australia to create a code that describes how ^3He burns during star formation so that the makeup of the universe after the Big Bang is reconciled.

"Prior to our work, it was perceived that the ^3He in the envelope was largely indestructible, and would be blown off later into space, thus enriching the interstellar medium and causing the conflict with the Big Bang," said Eggleton, an astrophysicist and lead author of the paper. "What we find is that ^3He is unexpectedly destructible, by a mixing process driven by a phenomenon that has been ignored so far."



On the cover: Plumes of ^{13}C in low mass stars are shown being lifted (red) by rising hydrogen-rich clouds (green).

CREDIT: DAVID DEARBORN/LLNL

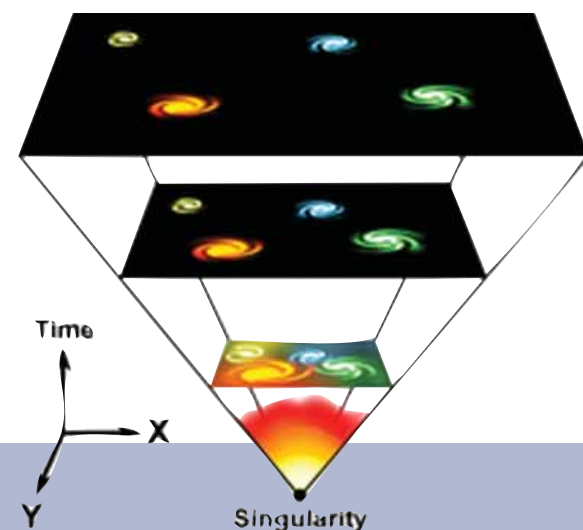
Expanding on the Big Bang Theory

In physical cosmology, the Big Bang is the scientific theory that the universe emerged from a tremendously dense and hot state about 13.7 billion years ago. The theory is based on the observations indicating the expansion of space as indicated by the Hubble redshift of distant galaxies taken together with the cosmological principle.

Extrapolated into the past, these observations show that the universe has expanded from a state in which all the matter and energy in the universe was at an immense temperature and density.

SOURCE: WIKIPEDIA

According to the Big Bang, the universe emerged from an extremely dense and hot state (bottom). Since then, space itself has expanded with the passage of time, carrying the galaxies with it.



LAB NEWS

Arnie Brockmire recounts Hurricane Katrina experience

By Linda Lucchetti
Newsline staff writer

Lab employees got a closer look and heard more about the effects of the largest disaster in US history from a man who took part in its rescue efforts. On Wednesday at noon, Lab firefighter Captain Arnie Brockmire shared his personal experiences as a member of a swift water team sent to New Orleans after Hurricane Katrina hit last year.

Brockmire, in charge of training fellow Lab firefighters, told the audience, "Rescue is my passion." He and fellow LLNL firefighter Ken Rinna were part of a 14-member team from Alameda County that committed 19 days to the search and rescue effort, performing 980 rescue missions, including rescuing 100 children separated from their parents.

Brockmire said on the first day the team extracted some 300 people, using boats and jet skis to reach victims, sometimes having to break apart the roofs of houses for entry. He showed slides taken in areas where floods caused by broken levees devoured buildings, residences and in some cases, their inhabitants. Victims used whatever means they could —



JACQUELINE MCBRIDE/NEWSLINE

Lab firefighter Captain Arnie Brockmire answers questions after his presentation "Making a Difference — Remembering the Impact of Hurricane Katrina," this week in the Bldg. 123 auditorium. The talk was sponsored by the 2006 HOME Campaign.

often tossing curtains or sheets out of second-story windows — to signal for help.

One of Brockmire's best moments during the ordeal came

when he assisted an 89-year-old woman. She may have been weak and frail, but feisty enough to greet her rescuers with an impatient, "it's about time."

Pets became flood victims as well. Volunteers were able to take many of the dogs they found to a veterinary team for help. Brockmire recalls seeing a lost dog who continued swimming in circles in the flood waters. The dog had a loaf of bread in his mouth and was obviously in survivor mode, not willing to be rescued.

But surprisingly, many hurricane victims' spirits remained intact, Brockmire said. "Wherever we traveled, when they learned we were from the Oakland area, we often heard cheers of 'Go Raiders.'"

Brockmire said he hasn't returned to New Orleans since the disaster but he has hopes of going back some day with the team. "I borrowed a pair of expensive tennis shoes from one of the residents. I still have them sitting in a box. I think it would be great to go back and return them," he said.

Brockmire's presentation was sponsored by the 2006 HOME Campaign. Last fall, Laboratory employees responded to the call for help following the devastating impact of Hurricane Katrina by contributing nearly \$75,000 in just a two-week period.

Donate to the 2006 HOME Campaign today. For more information, go to the Web at <http://home.llnl.gov/>



Brockmire's best moment came during the rescue of this elderly woman, whose son (left) led the response team to her house where she had been trapped for days.



Pets and people found themselves plucked from the flood waters during the aftermath of the hurricane.



During the rescue mission, individual teams of volunteers worked with local jurisdictions.

THE HOME PAGE

HOME agency makes a difference to Lab employees

By Linda Lucchetti
Newsline staff writer

Editor's note: Many Lab employees ask, "Why should I contribute to the HOME Campaign? Will my donations really make a difference?" Lab employees share the following personal experiences about a local HOME Campaign agency that has made a difference in their lives.

There are many caregiver programs available to parents that help young children. But what about those who have older loved ones, parents who need assistance because of aging or illnesses like dementia or Alzheimer's disease? Where do they turn to find a friendly, caring environment for adult relatives who cannot be left alone during the day or when caregivers are away?

In Livermore, the Tri-Valley Adult Care Program's "Friendship Center" fits the bill. For fourteen years, the Center has supported an adult daytime program for persons over 50 years of age. It is licensed to serve 30 elderly and/or frail adults a day and designed to enhance the mental, spiritual, and emotional well-being of the participant while giving respite to the family. A variety of social and recreational activities are provided, along with assistance and close supervision. The program is funded through clients and donors.

"There are so many benefits," explains Lauren Van Maren of the Lab's Plant Engineering department, whose father is a client at the Center. "For one, the Friendship Center gives my mother, who is the full time caregiver, a break."

Van Maren's father visits the Center several times a week from 9 a.m. to 3 p.m. There are activities and lunch is provided. She heard about the Center several years ago through the Lab's HOME Campaign and often made contributions. When her father began utilizing the services, she was very impressed. "My father is able to get out of the house for a while and interact with people. The Friendship Center just might be one of one of Livermore's best-kept secrets."

Mark Shaw of B Division has positive words as well about the atmosphere at the Friendship Center, adding that it is one of the few adult day care facilities in the Livermore Valley. Shaw's mother, who had Alzheimer's disease, lived with him and was unable to stay alone. He heard about the Center through his physician. His mother became a client there three days a week.

"The Friendship Center allowed her to leave the house and be cared for. Without it, I would have had to hire a full-time caregiver," he said.

Shaw said that Livermore's bus service, "Wheels," offers transportation to those who need it at a minimal charge. He said another benefit is that



JACQUELINE MCBRIDE/NEWSLINE

Music is in the air at Livermore's Friendship Center. Volunteer Jean Pender (left) accompanies the weekly sing-along with clients at the Tri-Valley Adult Care Program's "Friendship Center," one of the HOME Campaign agencies.

“
My father is able to get out of the house for a while and interact with people. The Friendship Center just might be one of one of Livermore's best-kept secrets.
”

— Lauren Van Maren

medications can be administered, as well as lunch and snacks.

The Center accommodates adults with a wide range of cognitive abilities, so some are able to bond and make friends.

"The Center had a great impact on my life. The staff was of tremendous help and they worked hard to keep everything in order," he said. "I found that my Mom's time spent at the Friendship Center helped her look outward instead of

inward."

Bud Summers credits a Lab noon presentation for his knowledge about the Tri-Valley Adult Center's "Friendship Center." Summers' wife had multiple sclerosis and although she was somewhat reluctant to attend the activities at the Center initially, she began her positive affiliation there as a volunteer client.

At first her visits to the Center were limited to three days a week, and then because of her needs, they progressed to five. Summers, who works in the Superblock with the Engineering Directorate, said that during that time, the Friendship Center was a "lifesaver" for him,

enabling him to go to work with peace of mind knowing that she was well taken care of.

"The people at the Friendship Center really care," he said.

Sandra Kaya, activities director, acknowledges the generosity of the Lab's HOME Campaign, since the program is self-sufficient.

She explained that the average age of the program's clientele is 80 years old, with 80 percent having a form of dementia.

"Clients who come to the Friendship Center experience a good quality of life — they are mentally stimulated, not just sitting in front of the television for hours," Kaya said. Activities include scavenger hunts, locating information in newspapers, group exercises and weekly sing-a-longs. "The work here is rewarding," says Kaya. "I feel good that I can help them as they live in the moment."

Admission to the program is not limited to Tri-Valley residents. There have been clients from Tracy and as far as San Francisco, with family members working in the Bay Area who can provide transportation.

For more information about the Friendship Center, located at 543 Sonoma Ave. Room 21, Livermore, go to the Web at <http://www.larpd.dst.ca.us/friendship.html> or call (925) 960-2420.



RETIREES' corner

Jane (Engineering Directorate, 1993) and **Pat** (C Division, 1990) **Ellis** flew to Boston and rented a car with **Dave** (Hazards Control/Z Div, 1993) and **June** (Budget Office, 1990) **Montgomery**. In Quebec City, the old part

of town, they had just finished having lunch when they looked across the street and saw **Gordon** (Engineering, 1996) and **Ester Longerbeam**.

They had a nice talk before they caught the bus back to their Old Quebec tour, which gave a very good history of the area. Gordon and Ester had just gotten off the Queen Mary 2, which had just docked. Talk about a small world. Pat and Jane had made a few stops after Boston, their favorite spot being Bar Harbor, Maine, where they stayed at a lodge that overlooked Frenchman's Bay. They also drove to Acadia National Park, which is a spectacular park. They especially enjoyed the Old Quebec tour with the waterfalls and Copper Art Museum. To top it all off, they hit the peak of the season with the changing of the colors; the trees were just beautiful.

Gus (Electronics Engineering, 1993) and **Jane** (Mechanical Engineering, 1993) **Olson** also have been doing a little traveling over the past month. In September they

spent a week visiting relatives in Indiana. Then in October, they spent three days in Paradise, Calif., and four days in Santa Barbara. Both California areas were just gorgeous and very enjoyable. Jane

had never been to Paradise or Santa Barbara and fell in love with both.

The **November luncheon** will be held on Wednesday, Nov. 15, at the Elks Lodge in Livermore, 940 Larkspur Drive. (Reservations: www.llnl.org). We

will have the same speaker as last year, Andrew Clark, manager of Health and Welfare at UC, who will tell us about the latest health plan changes. He would like any questions ahead of time, so please send them directly to Jeff Garberson at jcftgarb@comcast.net or snail-mail them to him at LLNL

Retirees Association, P. O. Box 2202, Livermore, CA 94550. Retirees should have received their open enrollment packets in late October or early November. If you did not, contact the health care facilitator at the Lab, Johnetta Jones at 422-8726.

Send input to Jane or Gus Olson. E-mail: augusto@aol.com or janerrubert@aol.com. Phone: (925) 443-4349; address: 493 Joyce St., Livermore, CA 94550.

Have a happy Thanksgiving.



PEOPLE NEWS

in MEMORIAM

Simon Peter Rosen

Simon Peter Rosen, a leading theorist in elementary particle physics, an international authority on neutrino physics and a director of major high energy and nuclear physics programs at DOE, died Oct. 13 at his home in Rockville, Md. He was 73.

Rosen was born in London, England, in 1933 and became a naturalized U.S. citizen in 1972. He received his bachelor's degree in mathematics in 1954 and both a master's and doctorate in theoretical physics from Merton College, Oxford University, in 1957.

At the time of his death, Rosen was senior science adviser to the director of DOE's Office of Science, a position he had held since 2003. He was associate director of High Energy and Nuclear Physics (HENP) in the DOE Office of Science from 1997 to 2003. He also served as program

director for the Theoretical Elementary Particle Physics Program at the National Science Foundation (NSF).

Rosen was a teacher, writer and advocate for the field of particle physics, which he sought to make more accessible to the general public. He led the DOE Office of Science's observance of the 2005 World Year of Physics and recommended DOE co-sponsorship of "Einstein's Big Idea," the PBS NOVA program in honor of the centenary of Einstein's famous equation, $E=mc^2$.

He is survived by his wife of 19 years, Adrienne Rosen of Rockville; his son Daniel Rosen of Milwaukee, Wis.; his daughter Sarah Rosen of San Francisco; his stepson Robert Hayes of Rockville; his stepdaughter Brooke York, her husband David, and their daughter, Megan, of Arlington, Texas.

Open Enrollment for 2007 continues

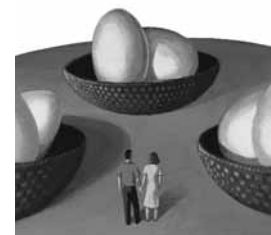
Open Enrollment for UC health and welfare benefits plans runs until Nov. 21, meaning it's time take action by visiting the At Your Service

Website (<http://atyour.service.ucop.edu/>) and selecting the Open Enrollment 2007 icon to get started. You can also review the general Open Enrollment announcement that you should have received in the mail at your home address

recently.

At the Open Enrollment Website, you can review your current plan enrollments; read about plan benefits, services and changes for

2007; see what the medical plan rates for 2007 will be; and use some helpful planning tools. The Website also has special information for Laboratory employees.



NEWSLINE

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Site 300 holiday closure and *Newsline* schedule

Because of the Thanksgiving holiday, the next edition of *Newsline* will appear Friday, Dec. 1. The last edition of *Newsline* for 2006 will appear Friday, Dec. 15. Employees are reminded that

Site 300 will be closed Wednesday, Nov. 22, for the Thanksgiving holiday. Look for additional information about Lab and Site 300 holiday hours in upcoming editions of *NewsOnLine*.

LAB NEWS



Lab ride 3



JACQUELINE MCBRIDE/NEWSLINE

Top left, Ted Sheppard of the Laboratory leads 140 motorcyclists down Greenville Road on their way to Site 300 for the third annual Lab Ride. Top right, riders park their bikes at Site 300 where they enjoyed a barbecue courtesy of the Lab Fire Department. At right, a rider checks out some of the custom bikes on display at Site 300. Lab Ride 3 generated \$2,712 in donations to support the Marine Corps’ Toys for Tots campaign, the Adopt-A-Platoon program and the Livermore Sentinels of Freedom. The Lab Ride has become an anual fund-raiser sponsored by LLAFFVA to gather funds for veteran programs.



Climate change technology commercialization

DOE to provide more than \$450 million to support the deployment of carbon sequestration technologies in the United States

U.S. Department of Energy (DOE) Assistant Secretary Jeffrey D. Jarrett recently discussed the Department’s decision to fund \$450 million over the next 10 years to support seven tests in the United States designed to advance carbon sequestration technologies.

He discussed the effort while attending the Asia-Pacific Partnership on Clean Development and Climate. The studies are designed to validate whether the large scale capture, transportation, injection, and long term storage of carbon dioxide (CO2) can be done safely, permanently, and economically.

“Carbon sequestration will play a key role in the United States’ effort to mitigate climate change and holds the key to the continued environmentally-responsible use of coal,” Assistant Secretary Jarrett said. “These tests, the next step in demonstrating that sequestration technologies are ready for commercialization, will help us achieve the President’s

climate change initiative by confirming that the geology of North America is suitable for the permanent and safe storage of CO2 for millennia.”

The Asia-Pacific Partnership on Clean Development and Climate is a unique public-private initiative among government and private sector partners from Australia, China, India, Japan, the Republic of Korea and the United States. These six countries account for about half of the world’s population and more than half of the world’s economy and energy use. The First Ministerial meeting of the Asia-Pacific Partnership took place in Sydney, Australia, in January 2006. At that meeting, the ministers agreed to a partnership communiqué, charter, and work plan that established eight public-private sector task forces.

Carbon sequestration technology has been successfully accomplished during smaller scale demonstration projects. If successful on a large scale, it could play a significant role in achieving President Bush’s goal to reduce greenhouse gas emissions intensity by 18 percent by 2012 and ensure that sequestration technologies will be ready for broad use in the near future.



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